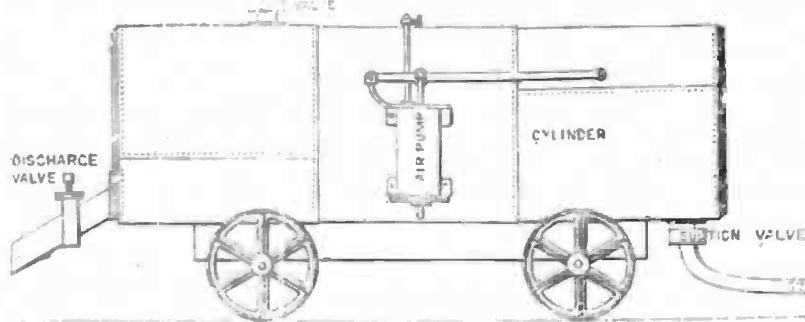
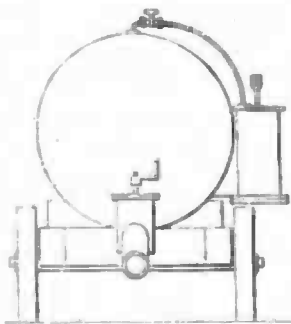


## CYLINDER AND PUMP TO EMPTY CESSPOOLS.



SIDE ELEVATION.



END ELEVATION.

## METROPOLITAN COMMISSION OF SEWERS.

We last week alluded briefly to a general meeting of the Commission of Sewers on the 13th,\* and now give the proceedings more in detail, in consideration of their importance.

Amongst the accounts of the late Poplar Commission, a bill of "18l. for tavern expenses," being objected to, was withdrawn, the old commissioners desiring that withdrawing it might not be supposed to admit that they had done any thing but what their predecessors had been entitled to do for seventy years.

Mr. Hertslet reported that upwards of 3,000 notices had been served upon parties in Westminster, calling upon them to drain their houses into the public sewers.

On a petition being presented from the Westminster Improvement Commissioners, in reference to the proposed new Victoria-street, Mr. Chadwick thought, as a difference of opinion existed between the surveyors on this subject, the matter should be referred. Mr. Austin's mode of drainage was, that, as the greater part of the district was below high-water mark, the sewage should be pumped out by machinery. Mr. Phillips' plan was by lowering the outfalls, and thereby forming an estuary in the Thames. He moved that the subject be referred to Mr. Austin to report thereon, and, when made, the court could then take the principle into consideration. The motion was agreed to; but, at a later period of the proceedings, Mr. Phillips was also ordered to report.

A letter was read from Dr. Guy, calling for the interposition of the powers of the court in Prince's-street, Holborn, where several cases of typhus fever had occurred from the want of drainage. The matter was referred to the surveyor, Lord Morpeth hoping that cases of typhus fever would receive the earliest consideration.

The clerk said, in reference to a question put by Lord Morpeth at a former court, as to what became of the sewage in Paris, that Mr. Bardwell had called upon him, and had made the following communication in writing:—

"These contents are carried to Montfaucon, and there deposited upon an inclined plane, down which the more liquid part runs, and is received progressively into different reservoirs, in which it deposits every particle of solid matter, for the water in the last reservoir appears perfectly limpid, and is then allowed to escape. On examining Montfaucon two years ago, I was surprised to find the people employed there were far from appearing sickly, and the children dwelling in the houses around looking ruddy and healthy; it is said, however, that the effluvia from Montfaucon is very injurious to the patients in St. Louis's Hospital, and the Government had determined to abolish the lay-stalls at Montfaucon, and to form a railroad for the purpose of conveying the filth usually deposited there to some distant forest."

In obedience to the following resolution—"That the clerk do write to the Commissioners of Police, requesting the superintendents of the various divisions to report for the information of the Metropolitan Commissioners of Sewers what localities are in the greatest want of drains, and where the inhabitants are most suffering from the accumulation of offensive matter"—agreed to at a former court, a most voluminous report was presented, including returns from every division, and setting forth the want of drainage.

Mr. Chadwick thought that similar reports should be made on the paving and surface draining, as he had no doubt it was equally defective with the underground drainage.—Mr. Byng said the report

\* In several of the morning journals the proceedings of the above court were announced as of "the first meeting" of the commission, although, as the readers of THE BUILDER are aware, no less than three courts had been previously held, at which important business was transacted, and correctly recorded in our pages.

was good as far as it went, but it did not go half the extent that he could have wished. He wished the whole amount of ill laid bare, that the public might know the state of that Augean stable they had undertaken to cleanse.

Mr. Leslie said, that having to make inquiries into the state of Kensington some time since, he ascertained that in Jennings's-buildings, consisting of twenty-six houses, no less than 1,360 persons slept there in one night. There was but one closet for the whole of these persons, and yet this place was not more than 50 feet from the main road of Kensington, and within a few yards of the palace.

The clerk then read the surveyor's report on cleansing and flushing of cesspools and sewers, some points in which we gave last week. We take the following further extracts:—

"We have continued the emptying of cesspools in courts and alleys, accompanied by the use of the disinfecting fluids, by the pump, with flexible drain or hose attached, and such case of removal of the diluted soil by the pump to the nearest sewer has been followed with the success we anticipated, both as regards economy and freedom from noxious effluvia."

"We have spent one day in trying the degrees of efficiency of the disinfecting fluids of Sir William Burnett, Mr. Ellerman, and Mr. Ledoyen."

"The agents of these parties have not as yet furnished us with the prices at which they will supply the fluids in large quantities; and, as we purpose shortly to try other means, we are not prepared to fix an average price at which cesspools may be emptied. We may, however, state that for small cesspools the cost will not exceed one-sixth of the ordinary charge; and for large ones the cost will be proportionably less, including the additional means of comfort and of freedom from annoyance."

"The contents of one large cesspool, equal to 24 loads of soil, were pumped out in 32 hours, at a cost of 28s. Under the old system three nights would have been occupied in emptying the cesspool, and it would have cost at least 34l."

"We are proceeding with experiments to ascertain the velocities of water and of air through glazed stoneware, glass, and other pipes, so that we may be enabled to compare the data so obtained with our practical experience of the velocities of running water in the sewers."

On the motion of Lord Ashley, the report was ordered to be printed and circulated.

An application was received from the vestry of St. Andrew's, Holborn, for the loan of the new pump used in emptying cesspools.—Mr. Roe said the parish might obtain one for themselves, with hose and apparatus complete, for 15l., and he would give them every facility for obtaining it. An answer to this effect was ordered to be sent to the vestry-clerk of Holborn, and all the other vestry-clerks within their jurisdiction.\*

Mr. Chadwick said rules had been drawn up for the guidance of voluntary associations in the country, as the power of this court was confined to the

\* Annexed we give an engraving of a cylinder and pump contrived for removing soil from cesspools inconspicuously.

metropolis; and Lord Ashley and himself had determined upon giving up their salaries for the purpose of trying experiments in the cleansing of courts and alleys.

Mr. Hutton.—And no doubt in this you will be joined by the whole of the commissioners.

Mr. Chadwick remarked upon the alarm that appeared to have been excited in the minds of parties at the removal of the refuse of the sewers into the river Thames. There could be no doubt that this practice was in itself objectionable, but he hoped by their arrangements it might be hereafter altogether prevented. At the same time he considered it as a choice of evils, quite inconsiderable with the evil of retaining the accumulations in cesspools in houses, or by the removal to lay-stalls, where the most noxious exhalations were emitted therefrom. He found that the proportion of cesspool matter was as only 1 to 10,000 parts of the quantity of water, and with the whole of the street matter added, it would then be as 1 in 5,000. The quantity of cesspool matter had been greatly exaggerated, for it was ascertained that according to Liebig's data, the whole produce of two millions of people might be discharged through a 7½ inch tube in twelve hours. It had also been observed that a considerable proportion of the pollution of the Thames arose from the discharge into it of mineral matter, gas, &c., and from the great increase of sediment by the passage of steam-boats up and down the river.

The clerk then presented a report from Sir H. de la Beche and Mr. Chadwick, on the proposed Ordnance survey of the metropolis, from which we make some extracts:—

"We have the satisfaction to report, that in answer to the questions transmitted to the office of Ordnance respecting a block plan of London, for drainage and other purposes, required by this commission, Colonel Hall, superintendent of the Ordnance survey, has forwarded to the Inspector-General of fortifications the accompanying letter and memoranda, from which it would appear that a block plan of the metropolis, and of the suburban districts included within a radius of eight miles from St. Paul's (the same area for which the estimate for a detailed map was given by Major-General Colby), may be executed, with a proper system of levels, for 24,818l., and that the cost of engraving the block plan, upon a scale of five-eighths of an inch, and upon 900 plates of double elephant size, would be including 3,600l. for the copper) 12,618l., making together, 36,999l."

Although the superintendent of the Ordnance survey expresses regret that a new map of London should be executed only as a block plan, including a proper system of levels, without the great detail inserted in the plans executed by the Ordnance survey for towns in the north of England,—a regret no doubt founded upon a desire not to produce a map of London inferior in detail to the plans of such towns,—we would observe, that in the questions proposed to the Ordnance we have looked strictly to the pressing requirements of the Metropolitan Commissioners of Sewers, and consequently, that we did not advert to details which were not immediately connected with them.

It appeared to us very important that the commissioners should, with as little delay as possible, be placed in a situation to comprehend the kind and amount of drainage at present existing in the districts confined to their care; so that, these being ascertained, effective measures might, without loss of time, be taken to remedy the evils which have arisen from divided and independent jurisdictions over the general area regarding this area, therefore, as a whole, bringing its drainage into general system, and securing greater efficiency at reduced cost.

To obtain the requisite evidence, an effective plan, with proper system of levels (recorded in convenient situations by a sufficient number of permanent bench-marks), is in our opinion, essential.

We consider the block plan proposed to be sufficient for the purpose contemplated, presenting all the advantages of greatly reduced cost and more speedy execution.

At the same time, it lays the foundation for any amount of detail for topographical, administrative, or sanitary purposes, which either the Government or public bodies interested may hereafter think advisable. Transfers, or copies of parts of such a plan, could at any time be obtained by public bodies for their own uses.

With copies of such parts as a foundation, administrative authorities, water and gas companies, and others interested, could insert any thing they may consider expedient—thus employing a correct work as a base, and avoiding the cost of constructing a new plan or map from its commencement."